Abstract

Software quality estimation is one of the most interesting research areas in the domain of software engineering for last few decades. Large numbers of techniques and models have already been worked out in the area of error estimation. The aim of software quality estimation is to identify error prone tasks as the cost can be minimized with advance knowledge about the errors and this early treatment of error will enhance the software quality. In this paper we have explored a set of data in university setting. This paper advocates the use of case-based reasoning (i. e., CBR) to make a software quality estimation system by the help of human experts. CBR relies on historical information from similar past projects, whereby similarities are determined by comparing the projects, and key attributes. We have used different similarity measures to find the best method which increases estimation accuracy & reliability. This paper presents a work in which we have expanded our previous work [24]. The software is a console based application and thus does not use the GUI functions of the Operating System, which makes it very fast in execution. In order to obtain results we have used an indigenous tool for software quality estimation, run in c++ compiler.
Software Quality Estimation using Machine Learning: Case-based Reasoning Technique

References

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Software Quality Estimation using Machine Learning: Case-based Reasoning Technique


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Index Terms

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Keywords

Software Quality estimation  CBR  Analogy  Similarity measure  Machine learning

Error